

**APPENDIX B**  
**VERSION WITH MARKINGS TO SHOW CHANGES MADE**  
**37 C.F.R. § 1.121(b)(iii) AND (c)(ii)**

**CLAIMS:**

5. Apparatus according to claim 3 [or claim 4], wherein the oscillation amplitude is controlled in real time.

6. Apparatus according to [any of claims 1 to 5] claim 1, wherein the width of each of the first and second optical radiation sensing areas is greater than the sum of half the width of the oscillating object and the amplitude of oscillation of the object.

7. Apparatus according to [any of the preceding claims] claim 1, wherein the first and second optical radiation sensing areas are directed towards the optical radiation source.

8. Apparatus according to [any of claims 1 to 6] claim 1, wherein the first and second optical radiation sensing areas are not directed towards the optical radiation source and the detector further comprises an optical device to direct the optical radiation onto the first and second sensing areas.

10. Apparatus according to [any of the preceding claims] claim 1, wherein the oscillating object is a tip of an ultrasonic transducer for use in an ultrasonic welding machine.

11. A wire bonder comprising apparatus according to [any of claims 1 to 9] claim 1.

12. A wire bonder according to claim [11 when dependent on any of claims 3 to 5 or on any of claims 6 to 10 when dependent on any of claims 3 to 5] 3, wherein the control device comprises an ultrasonic wave controller.

15. A method according to claim 13 [or claim 14], wherein the oscillating object is a tip of an ultrasonic transducer in an ultrasonic welding machine.

[illegible]

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